

20021113.ba v03_n415.bam.20021113

>From ???@??? Wed Nov 13 09:02:43 2002 -0600
Message-Id: <200211131502.gADF2V6G029074@sco.theporch.com>
Date: Wed, 13 Nov 2002 09:02:09 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3415

BOATANCHORS Digest 3415

Topics covered in this issue include:

- 1) Re: 32V-3 Component Reliability
by "Marty's Refl. Drop" <polepeeg@aa4rm.ba-watch.org>
- 2) Re: Gonset audio interstage transformer
by "Marty's Refl. Drop" <polepeeg@aa4rm.ba-watch.org>
- 3) Re: 32V-3 Component Reliability
by Mike Feher <n4fs@monmouth.com>
- 4) New Military Radio Person Born
by David Stinson <arc5@ix.netcom.com>
- 5) Re: 32V-3 Component Reliability
by Al Klase <skywaves@bw.webex.net>
- 6) Re: 32V-3 Component Reliability
by "russ dworakowski" <wb3fau@hotmail.com>
- 7) Re: VB-9 Vibrator
by WA5CAB@cs.com
- 8) DX-100 & Apaches
by "russ dworakowski" <wb3fau@hotmail.com>
- 9) FS: SRR-13A
by "Merz Donald S" <merz.ds@mellon.com>
- 10) Q: What's A TCZ-1?
by "Merz Donald S" <merz.ds@mellon.com>
- 11) FS: Vibrator Supply
by "John K9UWA" <k9uwa@arrl.net>
- 12) WTD; PS f/SP-200/400
by scb@hiwaay.net
- 13) Re: WTD; PS f/SP-200/400
by "Al Parker" <anchor@ec.rr.com>
- 14) Re: Gonset Audio Interstage Transformer
by "JAMES T HANLON" <knjhanlon@msn.com>
- 15) Re: 32V-3 Component Reliability
by "JAMES T HANLON" <knjhanlon@msn.com>
- 16) Bakelite panel source
by "R.J. Mattson" <rjmattson@hvi.net>
- 17) Re: Bakelite panel source
by Mike Feher <n4fs@monmouth.com>
- 18) RE: Bakelite panel source

by "Ed Sieb" <esieb@sympatico.ca>
19) Bakelite Panel Source
by "R.J. Mattson" <rjmattson@hvi.net>
20) Re: Bakelite Panel Source
by John Shriver <jshriver@sockeye.com>
21) RE: Bakelite Panel Source
by "Merz Donald S" <merz.ds@mellon.com>
22) Re: Bakelite Panel Source
by Kd6b@aol.com
23) RE: GB> Update On Supply for PP 304TLs: W9TB Homebrew Pics
by "Merz Donald S" <merz.ds@mellon.com>

Date: Tue, 12 Nov 2002 09:58:18 -0500 (EST)
From: "Marty's Refl. Drop" <polepeeg@aa4rm.ba-watch.org>
Message-Id: <200211121458.JAA01700@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 32V-3 Component Reliability

Al I'd say that's a freak failure. I've been thru a half-dozen 32Vx-s & have never seen it.

I'd put an external supply on her & wick up the B+ to, say, 450V thru, say, a 20k resistor.

Check leakage current ($\Delta V = IR$ across 20k) & if low & stays that way for hours, I'd say perfecto.

Let the "change 'em all - good practice" flammers rage

Marty

Date: Tue, 12 Nov 2002 10:04:22 -0500 (EST)
From: "Marty's Refl. Drop" <polepeeg@aa4rm.ba-watch.org>
Message-Id: <200211121504.KAA01714@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: Gonset audio interstage transformer

Chuck it sounds like the audio xfrm'r's OK

> no R to ground on VOM

Try this. Keep 1 primary lead connected to B+, & lift the other from the RC filter headed for the triode's plate.

I believe it's either the triode or a C in that RC filter. If

theory true, audio xfrmr will stay cool (beans, man - teen talk)

Marty

Date: Tue, 12 Nov 2002 10:12:01 -0500
From: Mike Feher <n4fs@monmouth.com>
Subject: Re: 32V-3 Component Reliability
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <00f001c28a5d\$eac89240\$086dbd18@n4fs>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Like Marty, I have also been through at least 10 of them. Out of all of those, only 2 had the problems with the micas. In those two, several in each RF section was shorted, not just one. I only replaced the defective ones in each, and then they worked fine. As I no longer have them I do not know if any of the others have failed or not since, but, I used each for at least a year or more before selling or trading them. That RF deck is fun to work on, HI. 73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell NJ, 07731
(732) 901-9193

Message-ID: <3DD122D7.7B24281@ix.netcom.com>
Date: Tue, 12 Nov 2002 09:48:39 -0600
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: New Military Radio Person Born
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Annabelle Grace Stinson
arrived on Veteran's Day, at "813" in the morning.

Is there any doubt this is a new milradio person?

Happy Daddy,
Dave S. AB5S

p.s. Daughter #4... no wonder I'm broke!

Message-ID: <3DD1254D.F4BD4477@bw.webex.net>
Date: Tue, 12 Nov 2002 10:59:09 -0500
From: Al Klase <skywaves@bw.webex.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
Subject: Re: 32V-3 Component Reliability
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Thanks Marty,

I like the hi-pot test idea. I'll do it.

Al

"Marty's Refl. Drop" wrote:

>
> Al I'd say that's a freak failure. I've been thru a half-dozen 32Vx-s
> & have never seen it.
>
> I'd put an external supply on her & wick up the B+ to, say, 450V
> thru, say, a 20k resistor.

--
Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: <http://www.webex.net/~skywaves/home.htm>

From: "russ dworakowski" <wb3fau@hotmail.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 32V-3 Component Reliability
Date: Tue, 12 Nov 2002 13:10:34 -0500
Mime-Version: 1.0
Content-Type: text/plain; format=flowed
Message-ID: <F70FceWv4SKQd4ywhIg00008935@hotmail.com>

In the last year or so, I have had a rash of mica capacitor failures. All of the equipment was 45 or more years old. You have to keep in mind that something is going to fail in this old stuff. As for the 32v transmitters, I have seen those transmitting micas fail, but I wonder if it were not a lightning hit? Much more common a failure is

the transformer with all the filament windings in it. Russ.

>From: Mike Feher <n4fs@monmouth.com>
>Reply-To: n4fs@monmouth.com
>To: Old Tube Radios <boatanchors@theporch.com>
>Subject: Re: 32V-3 Component Reliability
>Date: Tue, 12 Nov 2002 10:12:01 -0500
>
>
>Like Marty, I have also been through at least 10 of them. Out of all of
>those, only 2 had the problems with the micas. In those two, several in
>each
>RF section was shorted, not just one. I only replaced the defective ones in
>each, and then they worked fine. As I no longer have them I do not know if
>any of the others have failed or not since, but, I used each for at least a
>year or more before selling or trading them. That RF deck is fun to work
>on,
>HI. 73 - Mike
>
>
>
>Mike B. Feher, N4FS
>89 Arnold Blvd.
>Howell NJ, 07731
>(732) 901-9193

Protect your PC - get McAfee.com VirusScan Online
<http://clinic.mcafee.com/clinic/ibuy/campaign.asp?cid=3963>

From: WA5CAB@cs.com
Message-ID: <145.27793a6.2b029efe@cs.com>
Date: Tue, 12 Nov 2002 13:14:22 EST
Subject: Re: VB-9 Vibrator
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_145.27793a6.2b029efe_boundary"

--part1_145.27793a6.2b029efe_boundary

Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Groups,

I sent Dave a direct note yesterday that unfortunately had several errors in it which I'll correct here. Plus Jay commented on Dave's original post so I decided to send my corrected comments to the list.

There is a CLG-20206 vibrator supply for the TBY (the 115VAC/VDC shipboard unit) and I do have manuals for it and it does not use the VB-9 (it uses a 50-volt 4-pin unit). But it doesn't run off of a wet cell nor use the vibrator that I told Dave that it did.

However, in retrospect I think that Dave and Jay were referring to the CLG-10144 that runs off of a 4 volt wet cell. It uses a 4-volt 4-pin vibrator (manufacturer's number supposedly R-84) that I have never seen outside of the supplies. It looks just like any other 4-pin vibrator but is a little odd in that it operates at 180 cps whereas most of the vibrators that I have specs on run at 100-120 cps.

The 10144 with the attached 19029 wet cell is the same physical size as the 19018 dry battery.

I do have some VB-9's but they are 10-volt units used in the Pogo-Stick's PE-157.

73
Robert Downs
Houston
<WA5CAB@cs.com>

--part1_145.27793a6.2b029efe_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_145.27793a6.2b029efe_boundary--

From: "russ dworakowski" <wb3fau@hotmail.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: DX-100 & Apaches
Date: Tue, 12 Nov 2002 13:25:37 -0500
Mime-Version: 1.0
Content-Type: text/plain; format=flowed
Message-ID: <F163wv8MM5zMh1JzPIId0000ae95@hotmail.com>

Question for you Heathkit people: The modulation transformers for the Apache and DX-100 are similar, yet slightly differ in size. Are they the same ratio? The unit for the Apache is the larger, but only slightly. Is there a difference in wattage? I used to think they were the same, but I know now that they are not the same, and I have both - and the part numbers are also different. Thanks for your expert advice. Russ.

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Message-ID: <20021112185456.28608.qmail@mellon.com>
Content-Class: urn:content-classes:message
Subject: FS: SRR-13A
Date: Tue, 12 Nov 2002 13:55:29 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
From: "Merz Donald S" <merz.ds@mellon.com>
To: Old Tube Radios <boatanchors@theporch.com>

For Sale

AN/SRR-13A HF receiver. This is a 1950's receiver designed by RCA as = part of a set of receivers targeted at replacing the venerable RBA, RBB = and RBC receivers. It is unique in that the frequency readout is = projected onto a ground glass on the front of the receiver. It was = designed for rack mounting, though this one has no rack ears. It was = also designed in a cabinet that opens such that the guts of the radio = can slide out on rails and then be tilted up or down to get access to = the top or bottom electronics. The downside to this is that the gears = and levers built into the handles on these sets are mechanical = nightmares that often fail. Both handles on this set are bad. But a =

previous owner had cleverly removed the latch on one side and the latch = mechanism on the other to keep the radio from "locking" itself into the = cabinet.

There are no visible modifications or nasty paint problems or other = issues on the front panel. Except for minor paint dings around the = edges, it is clean. The cabinet has its share of scuffs and scrapes but = on the whole is good. The back of the cabinet, where the connectors are = has been extensively modified. I guess whoever owned this did not have = the connectors and didn't want to look for them so all the original = connectors except the BNCs are gone. In their place is a plain old line = cord for AC power and a terminal strip for all the other connections.

Inside, the radio is missing one cover from one of the modules and the = tools and fuses are gone (of course). But the modules seem intact and = they are all present. Some light corrosion marks are on the tuning = module. The guts slide in and out relatively easily. The slide stops still = work so the guts don't fall out on your toes. I did not test anything = about this set. I never powered it up. I did not even test to see if the = tilt mechanism still works (I suspect it does though). So this is = offered here, pre-eBay, as-is for \$149 plus shipping on about 80 pounds.

Anyone considering this would do well to look up the ER in Uniform = article on this set that is in one of the early copies of Electric = Radio.=20

Thanks.

73, Don Merz, N3RHT

Message-ID: <20021112190433.23229.qmail@mellon.com>

Content-Class: urn:content-classes:message

Subject: Q: What's A TCZ-1?

Date: Tue, 12 Nov 2002 14:06:10 -0500

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

From: "Merz Donald S" <merz.ds@mellon.com>

To: Old Tube Radios <boatanchors@theporch.com>

A: It's an ART-13 as far as I can see here. But the tag says "115V 60 = cy". Haven't seen that before.=20

Does anyone have one? Or know of a source for a manual? Or original = power supply (yeah, sure) and/or connecting cables?=20

From: "John K9UWA" <k9uwa@arrl.net>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 12 Nov 2002 16:38:01 -0500
MIME-Version: 1.0
Subject: FS: Vibrator Supply
Message-ID: <3DD12E69.27142.1F0F7F4@localhost>
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-description: Mail message body

Powercon Vibrator supply by CDE
says its good for 1.8Amps 12 volts in.. switchable LowMedHi out...

needs work..... didn't vibrate when I applied 12 volts to it.....

See picture of supply at
<http://johnjeanantiqueradio.com/P0001769.jpg>

10 bucks plus UPS 12 pounds from zipcode 46765 if anyone wants
it.....

John k9uwa
John Goller, K9UWA & Jean Goller, N9PXF
Antique Radio Restorations
k9uwa@arrl.net
Visit our Web Site at:
<http://www.JohnJeanAntiqueRadio.com>
4836 Ranch Road
Leo, IN 46765
USA
1-260-637-6426

From: scb@hiwaay.net
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 12 Nov 2002 18:40:00 -0600
MIME-Version: 1.0
Subject: WTD; PS f/SP-200/400
Message-ID: <3DD14B00.25600.218C8F3@localhost>
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-description: Mail message body

Greetings;
Seeking titled item. Thnx f/ any assistance.
Steve Bringhurst

Message-ID: <073301c28ab2\$faacde00\$3201a8c0@w8ut>

From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: WTD; PS f/SP-200/400
Date: Tue, 12 Nov 2002 20:21:23 -0500

hi Steve,

I don't think they're too plentiful out there, somebody was looking for one a few wks ago.

But, I've got the current rqmts, as I've got an SP-200 & an SP-400, only 1 p.s. I took readings on the SP-200 a few wks ago, will dig them out if you want to build one. That's what I had planned to do until I found one, with the SP-200.

You can see my -200 on my website. It's actually a BC-779A, an SP-210-LX built to mil. specs.

73,

Al, W8UT

New Bern, NC

BoatAnchors appreciated here

<http://www.thecompendium.net/radio/>

<http://www.hammarlund.info>

----- Original Message -----

From: <scb@hiwaay.net>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Tuesday, November 12, 2002 7:40 PM
Subject: WTD; PS f/SP-200/400

> Greetings;
> Seeking titled item. Thnx f/ any assistance.
> Steve Bringhurst
>
>

From: "JAMES T HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "boatanchors" <boatanchors@theporch.com>
Subject: Re: Gonset Audio Interstage Transformer
Date: Tue, 12 Nov 2002 19:42:15 -0700
MIME-Version: 1.0
Content-Type: multipart/alternative; boundary="-----
=_NextPart_001_0001_01C28A83.9A7FA280"
Message-ID: <DAV36eamWqG4oE7c13K0000ee68@hotmail.com>

-----=_NextPart_001_0001_01C28A83.9A7FA280
Content-Type: text/plain; charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

Chuck,

It sounds like your transformer has a leakage path but is not yet dead. =
There are several things you might want to do.

First, check with an ohm meter to see where the leakage path is. If it is
from winding to winding there isn't a lot you can do easily - outside of
stripping the windings and starting over. But if it is from one winding
to the transformer frame, you could just insulate the frame from the cha=
ssis and it would work OK again. =20

If you want to replace the transformer and both windings are still intact=
, you could measure the turns ratio. Voltage step-up or step-down varies=
directly as the turns ratio. That is, if V1 is the voltage across windi=
ng 1 and that winding has N1 turns, and likewise for winding 2, then $V1/V2 = N1/N2$. Just excite one of the windings with a convenient audio si=
gnal, measure the voltage across that winding and across the other windin=
g with an ac voltmeter, and you will be able to calculate the turns ratio=
.

Hope this helps.

Jim, W8KGI

-----=_NextPart_001_0001_01C28A83.9A7FA280

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

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* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
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* * * * *
```

-----=_NextPart_001_0001_01C28A83.9A7FA280--

From: "JAMES T HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "boatanchors" <boatanchors@theporch.com>
Subject: Re: 32V-3 Component Reliability
Date: Tue, 12 Nov 2002 19:46:29 -0700
MIME-Version: 1.0

Content-Type: multipart/alternative; boundary="-----
=_NextPart_001_0002_01C28A84.321442E0"
Message-ID: <DAV4431KJydi8jmJkvE0000f171@hotmail.com>

-----=_NextPart_001_0002_01C28A84.321442E0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Al,

I have a 32V3 that was a fixer-upper when it came to me. I have never had a problem with the postage-stamp mica capacitors in it. So I suspect you have an early-failure rather than an end-of-life for the entire population problem.

Jim, W8KGI

-----=_NextPart_001_0002_01C28A84.321442E0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * *
* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
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* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *

-----=_NextPart_001_0002_01C28A84.321442E0--

Message-ID: <00a201c28abf\$284089a0\$f06ddbd0@rjmattson>
From: "R.J. Mattson" <rjmattson@hvi.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Bakelite panel source
Date: Tue, 12 Nov 2002 21:48:32 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi all,
Can you still buy bakelite panels? I need a 19" x 7" panel for a 1930s restoration project. Is another name hard rubber or is that an older substance?

Bob...W2AMI

----- Original Message -----

From: "Greg Hunolt" <ghunolt@excel.net>
To: <boatanchors@mailman.qth.net>
Cc: "Greg WI Hunolt" <ghunolt@excel.net>
Sent: Tuesday, November 12, 2002 9:07 AM
Subject: [Boatanchors] Cleaning Bakelite

I have some old equipment I'm trying to restore - e.g. a Westinghouse RC from the early 20's that I've gotten working - with black bakelite front panels. Does anyone have any advice about how to clean those front panels without damaging them? Thanks for you help!

Greg Hunolt

Boatanchors mailing list
Boatanchors@mailman.qth.net
<http://mailman.qth.net/mailman/listinfo/boatanchors>

Date: Tue, 12 Nov 2002 22:52:27 -0500
From: Mike Feher <n4fs@monmouth.com>
Subject: Re: Bakelite panel source
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <005601c28ac8\$1695bf00\$086dbd18@n4fs>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Hi Bob -

I do not know if you can still buy bakelite panels or not. Hard rubber panels are made of a different substance and were used in the early to mid teens mostly. Hard rubber was typically found on commercially made rigs, since most hams breadboarded their own stuff. A long long time ago I did come across a British home brew from the early '20s that did have a hard rubber panel. 73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell NJ, 07731

(732) 901-9193

----- Original Message -----

From: "R.J. Mattson" <rjmattson@hvi.net>

> Hi all,

> Can you still buy bakelite panels? I need a 19" x 7" panel

> for a 1930s restoration project. Is another name hard rubber or is that an
> older substance?

> Bob...W2AMI

From: "Ed Sieb" <esieb@sympatico.ca>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: RE: Bakelite panel source

Date: Tue, 12 Nov 2002 23:06:16 -0500

Message-ID: <LOBBJHOL00HLIPLONIAFEECLFMAA.esieb@sympatico.ca>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

I have used black acrylic as a substitute, when bakelite is totally
unobtainium.

Bakelite is available, but very costly in the typical sizes and quantities
home-brewing
and boatanchor restoring Hams might use.

Ed VA3ES

> -----Original Message-----

> From: Mike Feher

> Hi Bob -

>

> I do not know if you can still buy bakelite panels or not. Hard rubber...

>

> ----- Original Message -----

> From: "R.J. Mattson" <rjmattson@hvi.net>

> > Hi all,

> > Can you still buy bakelite panels? I need a 19" x 7" panel...

Message-ID: <011301c28ad2\$0e2a1780\$f06ddbd0@rjmattson>

From: "R.J. Mattson" <rjmattson@hvi.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Bakelite Panel Source

Date: Wed, 13 Nov 2002 00:03:49 -0500

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I checked AES, I copied this from their catalog:
"Black Lucite panel closely resembles "Bakelite" panels used on early
battery radios. Glossy finish, 1/4" thick. Can be difficult to machine."

I would hate to restore a 30s antique with black Lucite hi
The search continues for real bakelite.
Bob...W2AMI

Message-ID: <3DD258DB.80504@sockeye.com>
Date: Wed, 13 Nov 2002 08:51:23 -0500
From: John Shriver <jshriver@sockeye.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Bakelite Panel Source
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

R.J. Mattson wrote:

> The search continues for real bakelite.
> Bob...W2AMI

I'm not sure that this is really Bakelite we're searching for. I think
it's Phenolic, which is slightly different. Bakelite is a casting
material, Phenolic is a resin impregnated fiber (cloth) material. Comes
in brown (natural) and black.

Real Bakelite would be a disaster to machine, and would simply be too
fragile in a large flat panel. The Phenolic is reinforced.

Phenolic is still used as an insulating material in power electronics.
Not cheap, to say the least.

A search for:

phenolic sheet

on Google looks very promising.

Best page I found in a quick search was
<http://www.sdplastics.com/phenolic.html>

Message-ID: <20021113142427.12481.qmail@mellon.com>
Content-Class: urn:content-classes:message
Subject: RE: Bakelite Panel Source
Date: Wed, 13 Nov 2002 09:25:08 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
From: "Merz Donald S" <merz.ds@mellon.com>
To: Old Tube Radios <boatanchors@theporch.com>

I agree. Bakelite is nothing but a pain. One material that was often =
used in the 20's and 30's for panels was hard sheet rubber, 1/4" thick =
or more. From a distance of more than 6 inches away, it looks like =
bakelite and I think this mistake is often made in trying to identify =
construction materials today.=20
73, Don Not-Looking-For-Bakelite Merz, N3RHT

-----Original Message-----
From: John Shriver [mailto:jshriver@sockeye.com]
Sent: Wednesday, November 13, 2002 8:51 AM
To: Old Tube Radios
Subject: Re: Bakelite Panel Source

R.J. Mattson wrote:

> The search continues for real bakelite.
> Bob...W2AMI

I'm not sure that this is really Bakelite we're searching for. I think=20
it's Phenolic, which is slightly different. Bakelite is a casting=20
material, Phenolic is a resin impregnated fiber (cloth) material. Comes =
in brown (natural) and black.

Real Bakelite would be a disaster to machine, and would simply be too=20
fragile in a large flat panel. The Phenolic is reinforced.

Phenolic is still used as an insulating material in power electronics.=20
Not cheap, to say the least.

A search for:

phenolic sheet

on Google looks very promising.

Best page I found in a quick search was=20
<http://www.sdplastics.com/phenolic.html>

From: Kd6b@aol.com
Message-ID: <1a9.be03790.2b03c2aa@aol.com>
Date: Wed, 13 Nov 2002 09:58:50 EST
Subject: Re: Bakelite Panel Source
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Phenolic is the resin. It may be used alone or reinforced with fiber.
McMaster Carr has sheets (Garolite) and tubes available. The finish on the
sheets might not be good enough for front panels, so check carefully. Tubes
are great for coil winding and come in various diameters and wall thicknesses.
Ken

Message-ID: <20021113150011.22923.qmail@mellon.com>
Content-Class: urn:content-classes:message
Subject: RE: GB> Update On Supply for PP 304TLs: W9TB Homebrew Pics
Date: Wed, 13 Nov 2002 10:01:40 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
From: "Merz Donald S" <merz.ds@mellon.com>
To: Old Tube Radios <boatanchors@theporch.com>

Thanks to the generous hospitality of Bill Coleman, N2BC (a callsign =
that deserves a set of chimes!), a pretty good set of photos of the =
incredible W9TB homebrew station is posted on=20

<http://home.stny.rr.com/n2bc>

Tell me what you think.
73, Don Merz, N3RHT

-----Original Message-----
From: Merz Donald S [mailto:merz.ds@mellon.com]
Sent: Thursday, November 07, 2002 1:00 PM
To: amradio@mailman.qth.net; glowbugs@piobaire.mines.uidaho.edu
Subject: RE: GB> Update On Supply for PP 304TLs=20

Well, I have discovered the errors of my own making here. Your comments = helped me realize where I had gone astray.

First, let me say a few words in my own defense. Most homebrew rigs that = are passed along come with no documentation. A few come with some = documentation. And one in a hundred comes with good documentation. This = "W9TB Desk Kilowatt" is in that middle group. In this case, the partial = builder's notes that I have were ambiguous and I mis-interpreted them. = The power supply notes that I have are for the 4E27-based exciter--not = for the 304TL's final amp. I have almost no information on the final amp = supply that W9TB used. But I screwed up and thought his cryptic notes = were for the final amp.=20

Sooo...I only discovered my mistake when your comments started me = thinking about the use of the word "screen". Finally it dawned on me = that the notes I was looking at were for the exciter. Screen actually = meant screen, not grid. Now it all makes sense. But it means that I am = worse off than I thought for information on his original 304TL supply = design--there is basically none.

At the risk of boring you, let me back off here and describe this rig so = you have a complete picture. In a word--incredible. Imagine the finest = mechanical and electrical engineering skills pumped into a late-40's = homebrew CW kilowatt. It's a complete station with receiver, frequency = meter, monitor receiver, exciter, and final. It has provision for = antenna rotor control on the front panel. And it has provision for a = remote control console attachment. Based on the notes, the rig was built = in 1948-49, updated frequently over the years and used on the air until = about 1985. I will take some pictures and pass them along.=20

The control console, receiver and exciter are built on top of a = removable desktop. Each has its own compartment that it fits into. The = desktop itself appears to be commercial. But everything else is built = from scratch--sheet aluminum with aluminum bracing. The receiver has = been extensively solid-stated. I have not even opened it up yet. But I = believe it is 100% solid state. I have opened up the band switching = exciter and it is awesome. The construction quality is nothing short of = intimidating. It uses a 4E27 final and a National MB-150 tank circuit. = It is otherwise partly solid-stated. The transmitter and receiver both = use National PW dials for tuning.

The two pedestals that hold up the desk are packed with gear. The left = hand pedestal holds the final amp--push-pull 304TLs with the biggest = plug-in coils that B&W ever made and a variable center link operated by = a turns-counter lever on the front panel. One side of the pedestal is a = safety-interlocked door that opens to provide easy access to the final. = The other pedestal has a Meissner HF receiver built into the top = section, followed by a home-made heterodyne frequency meter and a drawer =

for holding the final coils. I have not looked at the Meissner receiver =
and freq meter at all.=20

The power supply for this rig was built into a closet in W9TB's house. =
The parts of the power supply that I have are whatever was salvaged from =
that closet including the pole pig. It's hard to make sense out of what =
is here.=20

I think I have HV, screen and filament covered for the exciter from my =
extensive "junk-box" power supply collection. But the junk box let me =
down on the final supply. I have no transformer capable of replacing the =
pole pig. It looks like W9TB was running the HV for both the exciter and =
the final from the pole pig. But there are no chokes in the "closet =
parts" that I received with the rig. And some hefty chokes will be =
needed. So I am only going to run the final from the pole pig and use =
the junk box supply as-is--unchanged (a lucky break) for the exciter.

So that's where this stands. I have no web site. But if someone has =
someplace I can post some pictures, I would like to hear from you.

Thanks.

73, Don Merz, N3RHT

-----Original Message-----

From: Merz Donald S [mailto:merz.ds@mellon.com]

Sent: Friday, November 01, 2002 3:28 PM

To: amradio@mailman.qth.net; glowbugs@piobaire.mines.uidaho.edu

Subject: GB> More On Supply for PP 304TLs=20

"Screen" is what the original builder's notes show instead of "grid" or =
"bias". So I was propagating the mis-wording when I used "screen." The =
304TL is of course a triode. Otherwise the audiophools could not love =
it.

It looks like he was running the grid bias at about 80 volts. He had the =
primary of the HV transformer connected to a motorized variac that =
slowly brought up the HV. This sits behind a mechanical timer assembly =
of WWII surplus vintage that only starts the variac moving after the =
filaments have been on for a while. He's got the relay sequence set up =
so that you can't get HV if you don't have bias--er, I mean "screen" =
voltage.=20

It's all a bit overly-clever if you ask me. But W9TB ran it for almost =
40 years from the late 40's to the mid-80's. And he's got a pretty =
impressive log here to show for it. I've got all his old parts and his =
original diagrams so I'll probably duplicate the whole thing--except for =

that doggone HV supply. That is going too far for me.=20

The thing with the HV supply is that he converted to solid state diodes = at some point. But the lower voltage drop of the new diodes left his HV = and "screen" supply too high. But instead of building a new supply, he = took transformer filament windings and hooked them up backwards to buck = down some of the voltage. When that wasn't enough, he inserted these = huge ceramic resistors in the line in banks of 3 or 6 in a haywire = parallel/series lash up to lower the voltage to where he wanted it.=20

The rest of the rig is built like a fine Swiss watch. But I guess he = sure didn't want to buy a new power transformer. So he made what he had = work. But I'm not going to heat the house with all these resistors or = fool around with bucking transformer windings. And the pole pig is just = too damn big.

I have some perfectly good HV supplies here that are not in use--sitting = in my garage. I want to adapt one of those somehow. That's my goal.=20

73, Don Merz, N3RHT

-----Original Message-----

From: George Pritchard [mailto:gpritchard@comtechpst.com]

Sent: Friday, November 01, 2002 2:52 PM

To: amradio@mailman.qth.net; glowbugs@piobaire.mines.uidaho.edu

Subject: RE: [AMRadio] Re: Supply for PP 304TLs ??

Use 3000 Volts max. I use a pair in AB1 Audio. No... I did not pay = \$85,000

for it! I would not sell it for that either!!! Having to much fun. = Anyway,

No screen supply needed since they are triodes. Neutralization is a big must. For class C, I would use 304THs since the bias requirement is = higher, and will give better efficiency and class C linearity when plate = modulated.

They do require plenty of drive however. The TLs versions are more = linear

for audio. Use a pair of THs for the class C, and a pair of TLs for the audio... if you have them. Audio phools are driving the price up on = these.

Glad I bought spares years ago! Have fun,
George AB2KC

-----Original Message-----

From: amradio-admin@mailman.qth.net

[mailto:amradio-admin@mailman.qth.net]On Behalf Of Brian Carling
Sent: Friday, November 01, 2002 1:33 PM
To: amradio@mailman.qth.net; glowbugs@piobaire.mines.uidaho.edu
Subject: [AMRadio] Re: Supply for PP 304TLs ??

Here you go DOn.

This outfit sells transformers for building a 304TL amplifier.

You can even buy the complete amplifier kit for \$85,000

Hehe - yes guys, that IS \$85,000

<http://www.alumrocktech.com/prices.shtml>

Of course, it's a stereo audiophool amplifier.

Looks like you could get a set of transformers for a mere \$14,000 or so.

On 1 Nov 2002 at 11:59, Merz Donald S wrote:

> By any chance is anyone running an HF amp or transmitter with
> push-pull 304TL tubes in the final? I have this homebrew here that
> uses this configuration. But the power supply it came with is in
> pieces and it is a mess. It was modified many times over the years by
> the builder and has been patched more than a Microsoft software
> product.
>
> So this thing needs a filament, screen and HV supplies. I can use some
> of the original parts. But for the HV, I don't want to use the
> original design because it is built around a 230V pole pig transformer
> and has lots of quirky design anomalies that I can live without
> (Anbody need a 125 pound pole pig? It'll give you 1700 to 2200 volts
> all day. The only drawbacks are that it is huge and weighs a ton).
>
> So I'd like to cheat and see how someone else is powering their rig to
> get some ideas. References to complete designs in any of the popular
> literature would be useful too. Can anyone help?
>
> 73, Don Merz, N3RHT
>
> -----
> AMRadio mailing list
> AMRadio@mailman.qth.net
> <http://mailman.qth.net/mailman/listinfo/amradio>

AMRadio mailing list
AMRadio@mailman.qth.net
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End of BOATANCHORS Digest 3415
